How to change front strut mount on **BMW E46 convertible** – replacement guide

VIDEO TUTORIAL

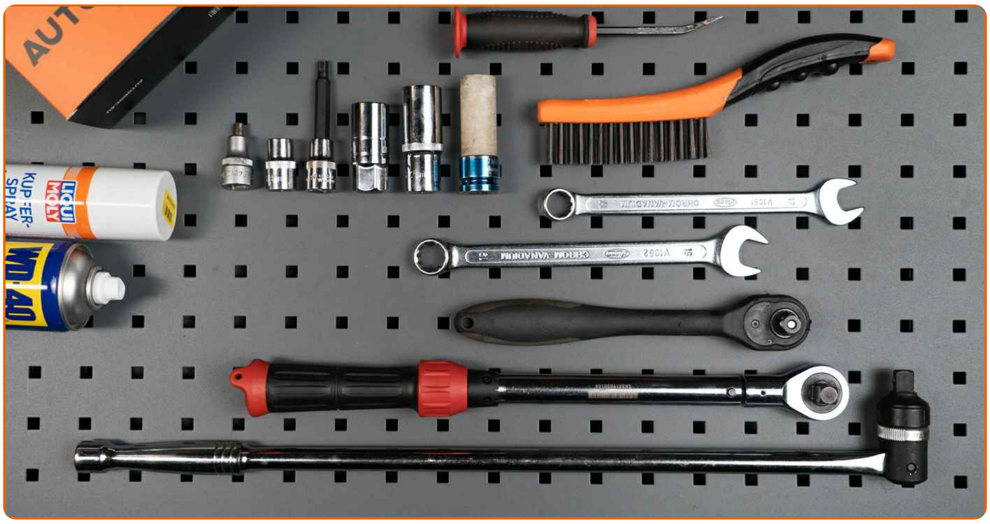


Important!

This replacement procedure can be used for:
BMW 5 Saloon (E39) 520i 2.0, BMW 5 Saloon (E39) 525tds 2.5, BMW 5 Saloon (E39) 523i 2.5, BMW 5 Saloon (E39) 528i 2.8, BMW 5 Touring (E39) 520i 2.0, BMW 5 Touring (E39) 523i 2.5, BMW 5 Saloon (E39) 525td 2.5, BMW 3 Saloon (E46) 318i 1.9, BMW 3 Saloon (E46) 328i 2.8, BMW 3 Saloon (E46) 320d 2.0, BMW 5 Touring (E39) 528i 2.8, BMW 3 Saloon (E46) 323i 2.5, BMW 3 Saloon (E46) 320i 2.0, BMW 5 Saloon (E39) 530d 3.0, BMW 5 Touring (E39) 530d 3.0, (+ 72)

The steps may slightly vary depending on the car design.

REPLACEMENT: STRUT MOUNT – BMW E46 CONVERTIBLE. LIST OF THE TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Copper grease
- Combination spanner #17
- Combination spanner #19
- Drive socket # 13
- Drive socket # 21
- Drive socket # 22
- HEX bit No.H7.
- Shock absorber socket
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Tap wrench
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Wheel chock

BUY TOOLS

Replacement: strut mount – BMW E46 convertible. Professionals recommend:

- The replacement procedure is identical for the mounts of the left and right shock struts of the front suspension.
- All mounts of the front shock struts should be replaced simultaneously.
- Be sure to replace all self-locking nuts and bolts during installation.
- Please note: all work on the car – BMW E46 convertible – should be done with the engine switched off.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1 Open the bonnet.



2 Secure the wheels with chocks.



3

Loosen the wheel mounting bolts. Use wheel impact socket #17.



4

Raise the front of the car and secure on supports.



5

Unscrew the wheel bolts.



Replacement: strut mount – BMW E46 convertible. Tip from AUTODOC:

- To avoid injury, hold up the wheel when unscrewing the bolts.

6

Remove the wheel.



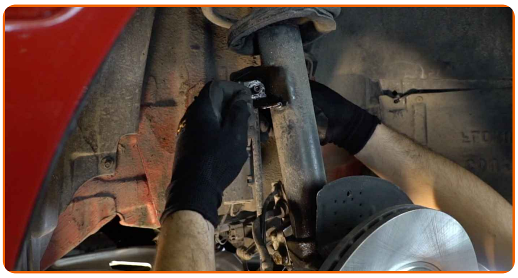
7

Clean the fasteners connecting the stabiliser link to the shock strut, and those connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



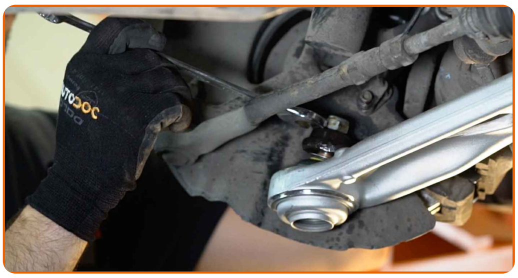
8

Unscrew the nut and remove the stabilizer rod from the shock strut. Use HEX No.H7. Use a combination spanner #17. Use a ratchet wrench.



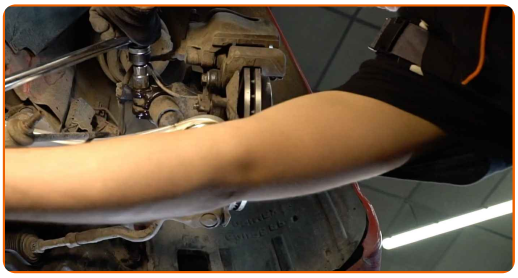
9

Unscrew the ball joint fastening to the steering knuckle. Use a combination spanner #19.

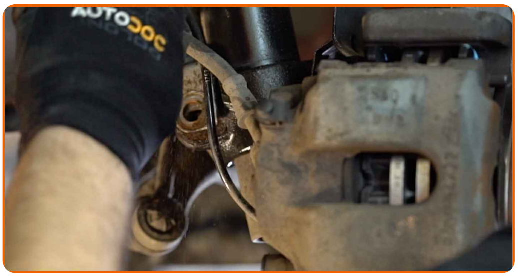


10

Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a drive socket #21. Use a tap wrench.



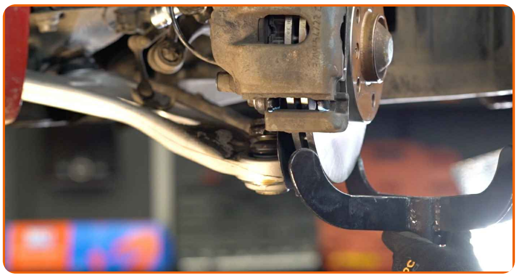
11 Disconnect the wiring and the brake hose from the bracket on the shock strut.



12 Release the lower fastener connecting the shock strut to the steering knuckle. Use a special drive socket to remove the shock absorber.



13 Prop up the steering knuckle. Use a hydraulic transmission jack.



14 Disconnect the lower arm from the steering knuckle.



15 Lower the hydraulic transmission jack by 10-15 cm.



AUTODOC recommends:

- Replacement: strut mount – BMW E46 convertible. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

16 Disconnect the steering knuckle from the shock absorber strut.



17 Unscrew the shock absorber mount fastening. Use a drive socket #13. Use a ratchet wrench.



18 Unscrew the upper fasteners of the shock strut.



Replacement: strut mount – BMW E46 convertible. AUTODOC recommends:

- To avoid injuries, hold the shock strut when undoing the fastening bolts.

19 Remove the suspension strut.



20 Set the shock absorber strut on the spring compressor tool.



Replacement: strut mount – BMW E46 convertible. AUTODOC experts recommend:

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

21 Compress the spring.



22 Remove the shock strut mount cap. Use a crowbar.



23 Remove the strut piston rod nut. Use a drive socket #22. Use HEX No.H7.



24 Remove the top strut mount.



Replacement: strut mount – BMW E46 convertible. Tip from AUTODOC experts:

- Examine the shock absorber dust cap and the bump stop. Replace them if necessary.

25 Install a new top shock strut mount. Use a crowbar.



26 Treat the fasteners of the shock strut mount. Use WD-40 spray.



27 Tighten the shock strut piston rod nut. Use a drive socket #22. Use HEX No.H7. Use a torque wrench. Tighten it to 64 Nm torque.



Replacement: strut mount – BMW E46 convertible. Tip:

- Check to make sure the spring is positioned correctly. Avoid its misalignment.

28 Decompress the spring.



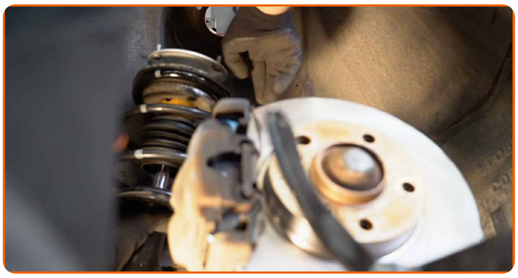
29 Install the shock strut mount cap.



30 Remove the assembled shock strut.



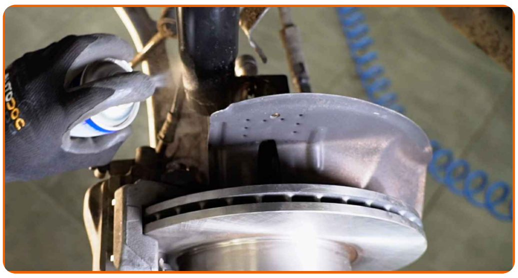
31 Install the shock strut into the wheel arch.



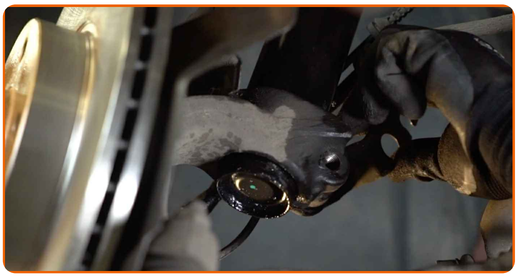
32 Secure the upper fasteners of the shock strut. Use a drive socket #13. Do not tighten it.



33 Treat the shock strut mounting seat on the steering knuckle. Use a wire brush. Use WD-40 spray.



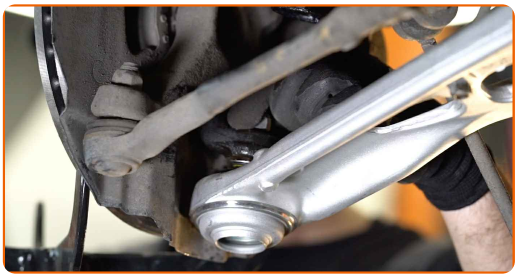
34 Fix the shock absorber strut on the steering knuckle.



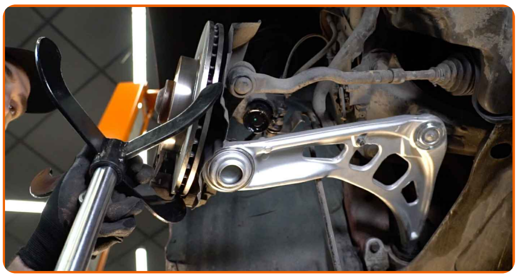
35 Install and tighten a new bolt of the steering knuckle.



36 Connect the lower arm to the steering knuckle.



37 Remove the support from under the steering knuckle.



AUTODOC recommends:

- BMW E46 convertible – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

38 Support the arm. Use a hydraulic transmission jack.



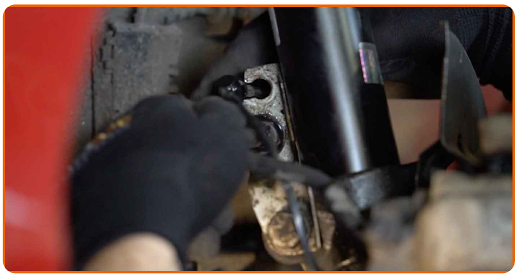
39 Screw the fastener connecting the ball joint to the steering knuckle. Use a combination spanner #19.



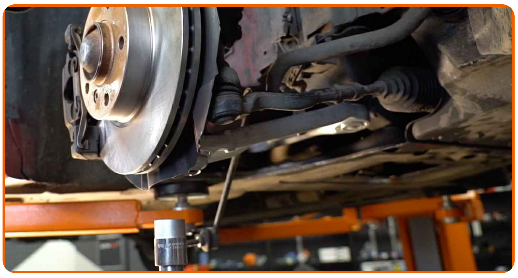
40 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #21. Use a torque wrench. Tighten it to 80 Nm torque.



41 Fasten the brake hose on the strut. Connect the fastener of the ABS sensor cable to the shock absorber strut.



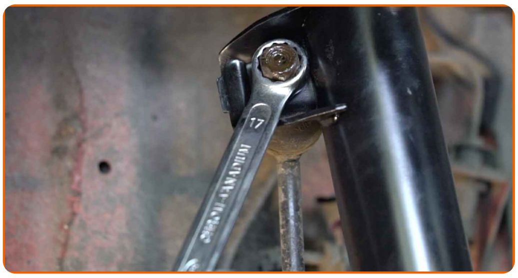
42 Remove the support from under the arm.



Replacement: strut mount – BMW E46 convertible. Tip from AUTODOC experts:

- Lower the hydraulic transmission jack smoothly, without jerks, to avoid damaging assemblies and mechanisms.

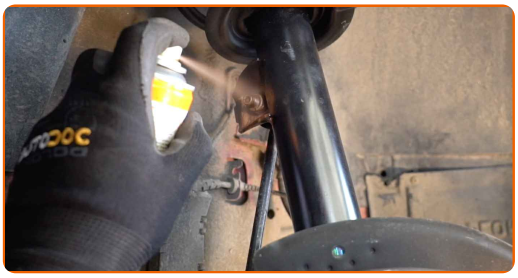
43 Secure the stabilizer link on the suspension strut. Use HEX No.H7. Use a combination spanner #17. Use a torque wrench. Tighten it to 55 Nm torque.



44 Tighten the ball joint fastener. Use a combination spanner #19. Use a torque wrench. Tighten it to 65 Nm torque.



45 Treat all joints of the arm. Treat the shock strut fasteners. Use copper grease.



46 Clean the wheel rim mounting seat. Use a wire brush. Treat the contacting surface. Use copper grease.



47 Install the wheel.



AUTODOC recommends:

- Important! Hold the wheel while screwing in the fastening bolts. BMW E46 convertible

48 Screw in the wheel bolts. Use wheel impact socket #17.



49 Tighten the upper fasteners of the shock strut. Use a drive socket #13. Use a torque wrench. Tighten it to 34 Nm torque.



50 Lower the car and working in a cross order, tighten the wheel bolts. Use a torque wrench. Tighten it to 120 Nm torque.



51 Remove the jacks and chocks.



52 Close the hood.



WELL DONE!

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